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Harris
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REMARKS

Reconsideration of the above-referenced application is respectfully requested in view of the above amendments and these remarks. Claims 1-29 are currently pending.

It is stated that the Title of the Invention is not descriptive and is therefore objected to. In accordance with the helpful suggestion made by the Examiner, Applicant has replaced the title to more accurately describe the invention. It is respectfully requested that the objection be withdrawn.

Claims 27 and 28 are rejected under 35 U.S.C. § 102(e) as being anticipated by United States Patent No. 6,804,542 to Haartsen et al. In addition, claims 1-26 and 29 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Haartsen in view of United States Patent No. 5,301,225 to Suzuki et al., and claims 2 and 6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Haartsen in view of Suzuki and further in view of United States Patent Application Publication No. 2003/0,114,159 to Park et al. Applicant has amended independent claims 1, 20 and 27 to more accurately define the invention and respectfully traverses the rejections. In particular, Applicant has defined the inactivity temporal window of claim 1 and 27 and the inactivity timer of claim 20 as the duration that the wireless mobile station remains in one of the modes of operation. Accordingly, the claims are clearly directed to adjusting the inactivity temporal monitor as a function of a measured characteristic such as the mobile station's mobility.

The present invention relates to a wireless mobile station that is configured to interact with a wireless communication system in one of at least three modes including an active mode, a dormant mode and a semi-dormant mode. In the active mode, the wireless mobile station and the wireless communication system are actively transmitting and receiving data. In the dormant mode, the wireless mobile station is not transmitting data and wakes up periodically to see if data is being transmitted by the wireless communication system. In the semi-dormant mode, the wireless mobile station is not completely in the active or dormant mode and the wireless mobile station and the wireless communication system transmit and receive data over control channels. As seen in the claims, the length of time that the wireless mobile station is in one of the three modes is defined by the inactivity temporal window or inactivity timer (collectively the "inactivity

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timer window"). The inactivity temporal window is the time during which the wireless mobile station remains in one of the modes of operation. If during the window, no activity is found, the wireless mobile station moves from an active mode to a semi-dormant mode and then from a semi-dormant mode to a dormant mode.

The present invention is directed to adjusting the inactivity temporal window and, in particular, in adjusting the inactivity temporal window as a function of measured indicators, such as mobility, of the wireless mobile station. With respect to claim 27, the present invention monitors an indicator of the communication resources set up delay information to provide a setup delay indicia. With respect to claims 1 and 20, the present invention monitors the mobility of the wireless mobile station to provide a mobility indicia. On the basis of the setup delay indicia or mobility indicia, the present invention then adjusts the inactivity temporal window. Accordingly, the inactivity temporal window is a dynamic feature depending on the indicator being monitored. For example, the inactivity temporal window is adjusted according to changes in the mobility of the wireless mobile station so that when the wireless mobility station is in an active mode and is highly mobile the inactivity temporal window may be of a sufficient duration. More specifically, the claims connect the duration of the inactivity temporal window and a measured indicia, such as mobility, of the connection between the wireless mobile station and the wireless communication network.

Haartsen is directed to system and method for conserving power in a radio communication network wherein a radio receiver periodically scans for a transmitted signal. If a signal is not received after a predetermined period of time, the period between scans is increased. In a multi-unit system, the scan periods are offset from an absolute time reference to prevent more than one unit from transmitting at the same time. In other words, Haartsen relates to the increasing the time between which the radio receiver scans a channel to determine if it is receiving a signal from the system on basis of whether it has received a signal. Thus, at a first instance of time, Tidle 1, Haartsen increases the time between scans, and Haartsen increases the time between scans again if the no data is received at a second instance of time, Tidle 2. Haartsen does not disclose that the inactivity temporal timer, or the time between modes, is adjusted according to any indicia of the channel. The adjustment of time in Haartsen relates only to the time between

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cheicket for data in one mode. With respect to the durations of the Tidle times, each Tidle time, e.g. Tidle1 and Tidle 2, remains the same and is not adjusted. The change according to Haartsen comes from switching from one Tidle 1 to Tidle 2.

Furthermore, Haartsen does not disclose more than an active mode and a sleep mode. In particular, Haartsen does not disclose the semi-dormant mode. The semi-dormant mode as defined by the present invention does not include the active mode or the sleep mode, otherwise known as the dormant mode. The semi-dormant mode is not referred to in the sections cited by the Examiner. For Haartsen, the mode of operation stays the same at different Tidle times, and at each Tidle time the wireless mobile station is still scanning for data. Moreover, Haartsen is only determining if data is being sent between the wireless mobile station and the wireless communication system. It does not disclose monitoring any indicia of the channel or any qualities of the wireless mobile station such as mobility.

Suzuki is directed to a mobile radio telecommunication system and method providing battery-saving receiving of mobile stations. The mobile station autonomously changes the period of intermittence according to the frequency of paging in order to reduce the power consumption of the mobile station. When there has not been paging processing for a fixed time, the mobile station autonomously prolongs the period of intermittence and reregisters a new period of intermittence. In the case there has been paging processing, the mobile station shortens the period of intermittence. In the Office Action, Suzuki is cited for an indicator of relative mobility regarding the wireless mobile station to provide a mobility indicia. The sections cited, however, state how information is sent over a control channel, see column 6, lines 34-37, determining a nearest cell site by electrical field strength, see column 6, lines 49-55 and changing the period of intermittence by the time of day, see column 2, lines 16-29. The cited sections appear to disclose that times of intermittence can be varied by the obvious criteria external to the operation of the wireless mobile station, such as time of day. These sections of Suzuki and the remainder of the cited reference do not disclose, teach or suggest the modifying and adjusting the inactivity temporal window or its equivalent as a function of a measured indicia of the wireless mobile station such as the mobility of the wireless mobile station.

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Moreover, there is nothing within Suzuki to teach one of ordinary skill in the art to modify the inactivity temporal window beyond that of the time of day.

In view of the foregoing, Applicant respectfully submits that Haartsen and the combination of Haartsen and Suzuki do not disclose, teach or otherwise suggest the invention as expressed in claims 1, 20 and 27. The combination of cited references does not make obvious that a measured factor such as mobility of the wireless mobile station can be used to modify or adjust inactivity temporal window that determines the duration that wireless mobile station operates in one of a plurality of modes. Applicant therefore respectfully submits that claim 27 is not anticipated by Haartsen and the claims 1 and 20 are not obvious in view of Haartsen and Suzuki. As claims 2-19 depend upon claim 1, claims 21-26 depend upon claim 20 and claims 28-29 depend on claim 27, it is respectfully submitted that these claims are not anticipated and are not obvious for the reasons given above. In addition, Park also does not disclose teach or otherwise suggest modifying or adjusting the inactivity temporal window with respect to claims 2 and 6. Therefore, Applicant requests that the rejections under Section 102(e) and 103(a) be withdrawn.

As the Applicant has overcome all substantive rejections and objections given by the Examiner and have complied with all requests properly presented by the Examiner, the Applicant contends that this Amendment, with the above discussion, overcomes the Examiner's objections to and rejections of the pending claims. Therefore, the Applicant respectfully solicits allowance of the application. If the Examiner is of the opinion that any issues regarding the status of the claims remain after this response, the Examiner is invited to contact the undersigned representative to expedite resolution of the matter.

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Please charge any fees associated herewith, including extension of time fees, to
50-2117.

Respectfully submitted,
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